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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,931	04/17/2001	Dean R.E. Long	SUN1P800/P5254	9076
22434	7590	06/27/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			VO, LILIAN	
			ART UNIT	PAPER NUMBER
			2195	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/836,931

Applicant(s)

LONG ET AL.

Examiner

Lilian Vo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 9 are pending.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/18/05 has been entered.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
4. Claims 1 – 9 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.
5. **Claims 1 – 3** are directed to method steps, which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alias, saving, acquiring, identifying, altering, notifying, restoring, releasing, performing, can be practiced mentally in conjunctions with pen and paper. The claimed steps do not define a machine or computer implemented process [see

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MPEP 2106]. Therefore, the claimed invention is directed to non-statutory subject matter. (The examiner suggests applicant to change “method” to “computer implemented method” in the preamble to overcome the outstanding 35 U.S.C. 101 rejection).

6. Regarding **claims 4 - 9**, the system and the apparatus are at best a software, per se, failing to be tangibly embodied or include any recited hardware as part of the system and the apparatus.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 6,523,059) in view of Toutonghi et al. (US 5,842,016, hereinafter Toutonghi).

9. Regarding **claim 1**, Schmidt discloses a method for requesting a consistent state in a computing environment using a first thread, the computing environment including multiple threads, the multiple threads including the first thread (col. 3, lines 21 – 27), comprising:

setting the state of the first thread to a safe state (col. 9, lines 20 – 34);

acquiring a consistent state lock using the first thread (col. 3, lines 21 – 27, col. 10, lines 19 - 34);

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identifying substantially all threads that are inconsistent, the inconsistent threads being included in the multiple threads (col. 10, lines 19 – 45, col. 11, lines 6 – 15, col. 13, lines 17 – 29, figs 7A);

altering the state of the substantially all threads that are inconsistent to a consistent state (col. 10, lines 19 – 45, col. 11, lines 35 – 53, col. 13, lines 30 – 32 and figs. 7B);

notifying the first thread when the state of the substantially all threads that are inconsistent have been altered to be consistent (col. 10, lines 19 – 47, 58 – 64, col. 13, lines 30 – 37 and fig. 6); and

releasing the consistent state lock using the first thread (col. 10, lines 19 – 47, col. 13, lines 30 - 39).

Schmidt did not clearly disclose the step of saving and restoring a snapshot of the thread state as claimed. Nevertheless, Toutonghi discloses the concept of saving the contents of any of the thread's registers and restoring registers saved (col. 12, lines 61 – 65 and col. 13, lines 7 – 9 and fig. 23). It would have been obvious for one of an ordinary skill in the art at the time the invention was made, to incorporate Toutonghi's teaching together with Schmidt's invention to indicate the state of the region through which the thread is passing (Schmidt: col. 9, lines 23 – 26).

10. Regarding **claim 2**, as modified Schmidt discloses a method as recited in claim 1 further comprising:

performing a garbage collection after releasing the consistent state lock using the first thread (Schmidt: col. 16, lines 28 – 32, 44 – 46, 51 - 53).

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11. Regarding **claim 3**, as modified Schmidt discloses a method as recited in claim 2 further comprising:

notifying the substantially all threads that have been altered to be consistent that the garbage collection has been performed (Schmidt: col. 8, lines 1 – 23, col. 13, lines 30 – 34).

12. **Claims 4 – 9** are rejected on the same ground as stated in claims 1 – 3 above.

Response to Arguments

13. Applicant's arguments with respect to claims 1, 4 and 7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2127

lv

June 21, 2005


MENG-AI TAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2